

WHAT IS CLAIMED IS:

1. A Reflective transmission type thin film transistor liquid crystal display (TFT LCD) comprising:

a glass substrate;

at least one thin film transistor on the substrate for controlling a pixel;

a passivation layer having at least one contact hole in a source region of the thin film transistor;

a transmissive pixel electrode which is formed on the passivation layer and is connected with a source electrode of the source region through a contact hole; and

A reflective pixel electrode which is formed on the passivation layer and is connected with the source electrode of the source region through a contact hole;

wherein pixel area is composed of a transparent area in which only the transmissive pixel electrode of whole pixel electrode exist and a reflective area in which the reflective pixel electrode exist.

2. The reflective transmission type thin film transistor liquid crystal display of claim 1, further comprising:

a separating insulator between the transmissive pixel electrode and the reflective pixel electrode.

3. The reflective transmission type thin film transistor liquid crystal display of claim 2, wherein the number of contact hole is one, the transmissive pixel electrode

112
and the separating insulator have a hole revealing some part of the source region and the reflective pixel electrode which is formed over the transmissive pixel electrode is connected with the source electrode of the part of the source region via the hole.

5
4. The reflective transmission type thin film transistor liquid crystal display of claim 2, wherein the number of contact hole is two, one for the transmissive pixel electrode and the other for the transmissive pixel electrode, and in the source region of the other contact hole, the transmissive pixel electrode and the separating insulator have a hole revealing for a connection between the reflective pixel electrode and the source electrode.

10
15
5. The reflective transmission type thin film transistor liquid crystal display of claim 1, wherein the number of contact hole is one, the transmissive pixel electrode and the separating insulator have a hole revealing some part of the source region and the reflective pixel electrode which is formed over the transmissive pixel electrode is connected with the source electrode of the part of the source region via the hole.

20
6. The reflective transmission type thin film transistor liquid crystal display of claim 1, wherein the reflective pixel electrode has a hole revealing some part of the source region and the transmissive pixel electrode which is formed over the reflective pixel electrode is connected with the source electrode of the part of the source region via the hole.

7. The reflective transmission type thin film transistor liquid crystal display of claim 6, further comprising:

a separating insulator having a connection hole connected with the hole between the transmissive pixel electrode and the reflective pixel electrode.

8. The reflective transmission type thin film transistor liquid crystal display of claim 1, wherein the reflective pixel electrode is made with metals including aluminum and the transmissive pixel electrode is made with indium metal oxide lineage.

9. The reflective transmission type thin film transistor liquid crystal display of claim 1, wherein the transparent area takes form and shape of window of the reflective area.

10. The reflective transmission type thin film transistor liquid crystal display of claim 9, wherein a separation insulator existing between the reflective pixel electrode and the transmissive pixel electrode does not exist in the transparent area.

11. The reflective transmission type thin film transistor liquid crystal display of claim 1, wherein the passivation layer is made with photosensitive transparent insulator and the surface of the passivation layer is treated to take embossment which forms micro lens for focusing light.

12. A Reflective transmission type thin film transistor liquid crystal display

(TFT LCD) comprising:

a glass substrate;

at least one thin film transistor on the substrate for controlling a pixel;

5 a first type pixel electrode which is deposited and patterned concurrently with gate of the thin film transistor, comprising upper non-oxidizing metal layer removed in transparent window region and lower transparent conductor layer;

a passivation layer which is formed over the thin film transistor and the first type pixel electrode and which has a contact hole at a source contact region and a hole at the transparent window and neighboring region; and

10 a second type pixel electrode which is formed over the passivation layer, is patterned to cover whole pixel area except the transparent window region, and is connected with a source electrode of the thin film transistor through the contact hole and connected with the non-oxidizing metal layer of the first type pixel electrode at the neighboring region.

15 13. The reflective transmission type thin film transistor liquid crystal display of claim 12, wherein the passivation layer is made with photosensitive transparent insulator

20 14. The reflective transmission type thin film transistor liquid crystal display of claim 13, wherein at least at some part the surface of the passivation layer is treated to take embossment which forms micro lens for focusing light.

2/1
Conced

15. The reflective transmission type thin film transistor liquid crystal display of claim 12, wherein the thickness of the passivation layer corresponds to the a quarter of wavelength of light in liquid crystal.

5 16. The reflective transmission type thin film transistor liquid crystal display of claim 12, wherein the non-oxidizing metal is one selected form the group consisting of chromium and tungsten-molybdenum.

add
R2